What is claimed is:

1.   A method for transferring MPOA packets in an ATM network, comprising the step for determining by an MPOA server which has received an address resolution request packet from an MPOA client about whether or not said address resolution request packet is to be forwarded to the other

5   MPOA server or the other MPOA client based on layer 3 packet filter information.

2.   A method for transferring MPOA packets according to claim 1, wherein the method comprising the step of transmitting by said MPOA client a source layer 3 address of the data packet that is to be a short cut by adding an extension of the MPOA address resolution request packet, while the MPOA

5   server determines whether or not said MPOA address resolution request packet is to be forwarded to the other MPOA server or the other MPOA client based on said source layer 3 address placed in the extension and the destination layer 3 address in the MPOA address resolution request packet received from said MPOA client, after being verification of the layer 3 packet

10   filter information.

3.   A method for transferring MPOA packets according to claim 1, wherein the method comprising the step for said MPOA client of:

notification by the client MPOA packet processor of the MPOA address

resolution request operation and source layer 3 address information to the

5   aource layer 3 address processor;

judging by the source layer 3 address extension processor which has

received the notification about whether or not the outer instruction directs to

include the source layer 3 address in the MPOA packet extension, and when

the answer is yes, to make the MPOA packet extension include the source

10   layer 3 address; and

transmitting by the client MPOA packet transmitting portion the

MPOA address resolution request packet with the MPOA packet extension

added at said client MPOA packet processor to an MPOA server.

4.   A method for transferring MPOA packets according to claim 1, wherein

the method comprising the step for said MPOA server of:

receiving by the MPOA packet receiving portion the MPOA address

resolution request packet from said MPOA client;

5   checking by the server MPOA packet processor about whether or not the

source layer 3 address is included in the received MPOA address resolution

request packet, and

when included, obtaining by the server MPOA packet processor of the

source layer 3 address and the destination layer 3 address;

10   retrieving by the layer 3 filter retrieving portion of the layer 3 filter

information using said source layer 3 address and the destination layer 3

address as the key, and judging by said server MPOA packet processor about

whether or not to permit passage of the filter; and directing the execution of error processing; when not permitted or directing the execution of processing for forwarding the received MPOA address resolution packet to the other MPOA server or the other MPOA client.

5. A method for transferring MPOA packets according to claim 4, wherein the error processing is a process for transmitting the MPOA packet which indicates that the address resolution has been failed toward the MPOA client.